Title (en)

EFFICIENT DIGITAL FREQUENCY DIVISION MULTIPLEXED SIGNAL RECEIVER

Publication

EP 0377509 A3 19920506 (EN)

Application

EP 90300093 A 19900104

Priority

US 29389489 A 19890105

Abstract (en)

[origin: EP0377509A2] A digital intermediate frequency (IF) receiver for frequency division multiplexed (FDM) signals including analog circuitry for receiving FDM signals and an analog-to-digital (A/D) converter for converting the received signals to a sampled digital received signal. A digital complex mixer responsive to the digital output of the A/D converter translates the spectrum of the sampled digital received signal to center the desired FDM channel at zero frequency (DC). Digital low pass filtering isolates the desired channel centered at DC, and a digital complex mixer can be used to translate the isolated selected channel to a predetermined IF frequency. The in-phase portion of the digital IF centered selected channel or the DC centered complex envelope selected channel can then be provided to appropriate demodulation or decoder networks.

IPC 1-7

H04J 1/05

IPC 8 full level

H03D 3/00 (2006.01); **H04B 1/16** (2006.01); **H04J 1/00** (2006.01); **H04J 1/05** (2006.01)

CPC (source: EP KR US)

H04B 1/06 (2013.01 - KR); **H04J 1/00** (2013.01 - KR); **H04J 1/05** (2013.01 - EP US)

Citation (search report)

- [X] EP 0289401 A2 19881102 - FAIRCHILD WESTON SYSTEMS INC [US]
- [Y] US 4653117 A 19870324 - HECK JOSEPH P [US]
- [A] EP 0290790 A2 19881117 - ANT NACHRICHTENTECH [DE]
- [A] ALTA FREQUENZA. no. 10, 1 December 1988, MILANO IT pages 545 - 559; ENRICO DEL RE ET AL.: 'Digital multicarrier demodulator for regenerative communication satellites'

Cited by

EP0798868A3; EP0589594A3; WO9608078A1; US6473602B1; WO9819491A3

Designated contracting state (EPC)

CH DE ES FR GB IT LI SE

DOCDB simple family (publication)

EP 0377509 A2 19900711; **EP 0377509 A3 19920506**; **EP 0377509 B1 19960911**; AU 4763290 A 19900712; AU 606007 B2 19910124; CA 2004860 A1 19900705; CA 2004860 C 19940315; DE 69028416 D1 19961017; DE 69028416 T2 19970130; ES 2091219 T3 19961101; IL 92883 A0 19900917; IL 92883 A 19940227; JP H02244922 A 19900928; KR 900012444 A 19900804; KR 930002085 B1 19930326; US 5058107 A 19911015

DOCDB simple family (application)

EP 90300093 A 19900104; AU 4763290 A 19900103; CA 2004860 A 19891207; DE 69028416 T 19900104; ES 90300093 T 19900104; IL 9288389 A 19891225; JP 36190 A 19900105; KR 900000018 A 19900104; US 29389489 A 19890105